

ANNUAL REPORT

1935

FIFTH IRRIGATION DISTRICT

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SUPERVISING ENGINEER



I N D E X

	<u>Page</u>
Acknowledgment.....	95
Acama Pueblo.....	21,69
Capt. Tom Wash Project.....	17,47
Cohiti Pueblo.....	26
District Office.....	1
Employees, List of.....	5
Employees, Public Works, List of.....	7
Hogback Project.....	12,48
Indian Employment.....	30
Isleta Pueblo.....	23
Kinlechee Project.....	17,56,76
Laguna Pueblo.....	21,70
Leupp Flood Control.....	17,94
Lower Crystal.....	18
Middle Rio Grande Conservancy District.....	23
Navajo Projects, Miscellaneous:	
Capt. Tom Wash.....	17,47
Kinlechee.....	17,56,76
Leupp.....	17,94
Lower Crystal.....	18
Round Rock.....	18
Surveys, Miscellaneous.....	19
Tesnospos.....	18,53
Navajo Water Supply.....	20
New Mexico Pueblos:	
Acama.....	21,69
Cohiti.....	26
Isleta.....	23
Laguna.....	21,70
Sandia.....	24
San Felipe.....	25

	<u>Page</u>
New Mexico Pueblos (Cont.):	
Santa Ana (Ranchitos).....	24
Santo Domingo.....	26
Zia.....	22,27
Oklahoma, Investigations in.....	31
Pine River Project.....	14,73
Public Works Projects:	
P. P. 6 White Horse Lake.....	33
" 6 Standing Rock.....	33
" 6 Canoneito.....	34
" 14 Chimopovy.....	35,91
" 14 Hotevilla.....	35
" 14 Polacca.....	36
" 15 Pinon.....	36
" 16 Oraibi.....	37
" 20 Denehotso.....	38
" 20 Red Rock.....	39
" 27 Zuni High School.....	39
" 32 Twin Lakes.....	40
" 32 Mexican Springs.....	41
" 32 Sawmill.....	41
" 32 Wide Ruins.....	42
" 86 Tohatchi Well.....	42
" 94 Northern Navajo Heating & Power....	43
" 211 Fruitland.....	44
" 212 Capt. Tom Wash.....	47
" 213 Hogback.....	48
" 217 Casamera Lake.....	49
" 220 Choiska.....	49
" 224 Red Lake.....	50
" 225 Denehotso.....	51
" 226 Lower Rock Point.....	52
" 228 Tesmospos.....	53
" 229 Tochenlini.....	54
" 230 Todenstani.....	54
" 231 Chinle.....	55
" 232 Ganado.....	55
" 233 Kinlechee.....	56
" 234 Klagetoh.....	56
" 235 Natural Bridge.....	57
" 236 Maslini.....	58
" 237 Round Rock.....	58
" 238 Sehili.....	59

	<u>Page</u>
Public Works Projects (Cont.):	
F. P. 240 Marsh Pass.....	60
" 242 Lower Moencopi Wash.....	60
" 243 Paiute Canyon.....	61
" 244 Oraibi Wash.....	61
" 245 Nambe.....	62
" 246 Picuris.....	63
" 247 Santa Clara.....	64
" 248 San Ildefonso.....	65
" 249 San Juan.....	66
" 250 Taos.....	67
" 251 Tesuque.....	68
" 253 Acama.....	69
" 254 Jones.....	69
" 255 Laguna.....	70
" 257 Zia.....	71
" 258 Zuni (Ojo Caliente).....	71
" 259 Zuni.....	72
" 267 Pine River.....	73
" 287 Burnham.....	74
" 287 Aneth.....	75
" 287 The Cove.....	75
" 287 Rock Point.....	76
" 288 Kinlehee.....	76
" 288 Hunter's Point.....	77
" 288 Greasewood.....	78
" 288 Steamboat.....	78
" 288 Naschiti.....	79
" 288 Rough Rock.....	80
" 288 Coyote Canyon.....	80
" 288 Two Wells (Cousins).....	81
" 288 Pine Springs.....	82
" 288 Chinle.....	82
" 288 Klagetoh.....	83
" 288 Wide Ruins.....	83
" 288 Cornfields.....	83
" 289 Lake Valley.....	84
" 289 Pueblo Alto.....	84
" 289 Huerrano.....	85
" 289 Torreon.....	86
" 289 Baca.....	86
" 289 Mariano Lake.....	87
" 290 Navajo Mountain.....	88
" 290 Kaibito.....	88
" 290 Kayenta.....	89
" 290 Moenava.....	90

	<u>Page</u>
Public Works Projects (Cont.):	
F. P. 291 Section 22 (Sebadalkai).....	90
" 292 Torreva-Chimopovy.....	91
" 393 Navajo Central Agency.....	91
" 416 Mescalero.....	93
" 419 Tesuque.....	93
" 426 Leupp Flood Control.....	94
Public Wells.....	21
Reports, Special.....	4
Round Rock Project.....	18
Sandia Pueblo.....	24
San Felipe Pueblo.....	25
Santa Ana Pueblo (Ranchites).....	24
Santa Domingo Pueblo.....	26
Tecospos Project.....	18,53
Zia Pueblo.....	22,71
Zuni Project.....	15,71,72
Water Supply:	
Navajo and Hopi.....	20
Public Wells.....	21
Zia Pueblo.....	22,71

Ganado Project

Neil Campbell, Foreman, Employee in Charge.

This project is located in the Southern Navajo subdivision in Arizona, and is operated and maintained by this Service. Water is diverted from the Rio Pueblo Colorado into the Ganado Storage Dam. There are 1,176 acres under this project, and most of this acreage is assigned to Indians. Of the total acreage, 146 acres are held by the Hubbell family and the Presbyterian Mission. The season of 1934 was a very poor one for this project. Very few of the Indians regularly farming on this project were on their assignments and the area cultivated dropped far below that of any recent year.

Early irrigation practically depleted the water stored in the reservoir, but the run-off of the Rio Pueblo Colorado during July and August permitted diversion of sufficient amount to take care of the irrigation of the cultivated area for the balance of the season. Operation of the canal was continued until October 31. General repairs to structures as far as weather conditions would permit were carried on throughout the winter. The spring run-off of the Rio Pueblo Colorado started early in March and continued throughout the month of April. With the increased storage capacity, there is ample supply to meet the demands for the 1935 irrigation season. Details of the enlargement of the Ganado Storage Dam is described under F. P. 232. Delivery of

water was started April 25, and operation continued through May and June.

There is a substantial increased acreage under cultivation under this project for the season 1935.

Miscellaneous Navajo Projects

C. A. Burns, Engineer, Employee in Charge.

Capt. Tom Wash

This irrigation project is located in the Northern Navajo subdivision in New Mexico. The principal supply of water for irrigation is from flood waters, and in order that the Indians of this project could make the fullest use of the water when the run-off occurs, they were assisted in the extension of their lateral system, thereby permitting a more equal distribution to the 2,700 acres of irrigable land under this project.

Kinlechee

This irrigation project is located in the Southern Navajo subdivision in Arizona. A new diversion dam was being constructed for this project under the Public Works program, and in order that there would be no interruption in the delivery of water to the Indian farms, certain repairs were necessary to the old log crib diversion dam. The work was done during the time of the Public Works construction.

Leupp

Surveys were made for additional protection work for the Leupp School. A study was made of the present river channel conditions in order that jetties might be located more advantageously. A program of channel control and levee construction

under Public Works is described under F. P. 426.

Lower Crystal

This irrigation project is located in the Southern Navajo subdivision in Arizona. Heavy rains during August, September, and October resulted in an abnormal run-off, causing considerable damage to the canal system. The Indians were assisted in the replacing of a flume and several culverts in the rehabilitation of their canal system.

Round Rock

This irrigation project is located in the Southern Navajo subdivision in Arizona. Assistance was given to the Indians on this project in the reconstruction of the first one-half mile of the main canal, as bank erosion of the stream was encroaching on the canal alignment.

Temospos

This irrigation project is located in the Northern Navajo subdivision in Arizona. Upon the completion of the construction program under Public Works, a small crew of regular employees worked with the Indians in the organization of a Farmers Water Users Association and in the construction of a farm lateral system. Instructions were given the Indians on the proper operation of the project and in the value of careful use of the water.

Miscellaneous Surveys

Throughout the reservation, there are groups of Indian farms of limited acreage too small for regular development. Assistance was rendered to many of these groups in bettering their canal systems and diversions, making it possible that the most benefits be received from their limited water supplies.

Water Supply, Navajo & Hopi

John J. Schwarz, Foreman, Employee in Charge.

Maintenance of the existing wells, windmills, tanks, troughs, dug wells, and springs were carried on throughout the Navajo and Hopi Reservations. This maintenance work was taken care of by two crews, one operating from Polacca, Arizona, and the other from Chinle, Arizona. Continuing the program of redeveloping drilled wells on the Navajo and Hopi Reservations that had failed after long years of use, two well rigs operated intermittently during the year. Eleven wells were worked on and placed in service again. In some cases, it was impossible to pull the old casing and a new hole was drilled alongside the old one, and the windmill set over the new well.

F. P. 240 Marsh Pass

This project is situated in the Western Navajo subdivision in Arizona. The old log, rockfilled crib dam was replaced by a masonry structure. Favorable progress was made on this construction except for such delays as were caused from flash floods occurring in August and September. The diversion dam was completed September 22. Directly below there was constructed a silt trap and sluice gate structure. The reservoir of this project, with capacity of 890 acre feet, was rehabilitated, including the installing of a new outlet gate. Canal excavation included new alignment and enlargement of the old ones.

Construction on this project was completed October 13. This project serves 250 acres of land. There was expended for labor during the year \$8,985.77. The total Indian man days for this period were 1,478-1/2 and the white 738.

F. P. 242 Lower Moencopi Wash

This project is situated in the Western Navajo subdivision in Arizona. Construction on this project was continued from the previous fiscal year, and was completed during the month of July, 1934. Activities were resumed April 22, 1935 in constructing certain betterments to the diversion dam, principally the addition of a concrete apron directly below the overflow section of the dam in order to check erosion of the stream bed.

The north abutment wall was extended for a considerable dis-

tance to protect the structure from flood waters. These improvements were completed June 22. The 400 acres of land under this project are available for assignment. There was expended for labor during the year \$3,820.23. The total Indian man days for this period were 700-1/4 and the white 85-1/2.

F. P. 243 Paiute Canyon

This project is situated in the Western Navajo subdivision in Arizona. Construction activities were continued from the previous fiscal year. It required the first two weeks of July to transport to the bottom of the canyon all of the materials necessary for the construction of the flumes. This transportation could be affected only by pack horse.

Floods occurred in the canyon during the latter part of the month delaying construction to some extent and causing considerable damage to existing ditches.

All work on this project was completed September 1. There are 150 acres of land at the bottom of this canyon. There was expended for labor during the year \$2,774.79. The total Indian man days for this period were 706 and the white 183-1/2.

F. P. 244 Oraibi Wash

This project is situated in the Hopi Reservation in Arizona. Construction was continued from the previous fiscal year with final work on this project being completed by July 21. Some

betterments were made to the flume structure and to the sluice gate during the month of June, 1935.

Four hundred fifty acres of land are available under this project. There was expended for labor during the year \$1,259.20. The total Indian man days for this period were 300-1/4 and the white 65.

F. P. 245 Namba

Construction on this project was continued from the previous fiscal year. During the month of July a program of bank protection and channel control in the arroyos crossed by flume structures on the High Line Canal was carried on.

Exposed rock in one section of the High Line Canal was drilled and shot in order to establish a new grade, thereby increasing the amount of water delivered below this point. This work was completed by the end of August.

Construction was resumed April 6, 1935 with the drilling of test holes at the site of the proposed Namba Storage Dam. Four tests were put down averaging eighty feet in depth. A new gauging station was constructed on the High Line Canal in order that complete records of the water diverted for use could be kept.

The proposed program for this project has not been completed in its entirety. The total irrigable area of this